

THE

Tobacco

FOR RELEASE
AUG. 12, P. M.UNIV. OF FLA LIB
DOCUMENTS DEPT.

SITUATION

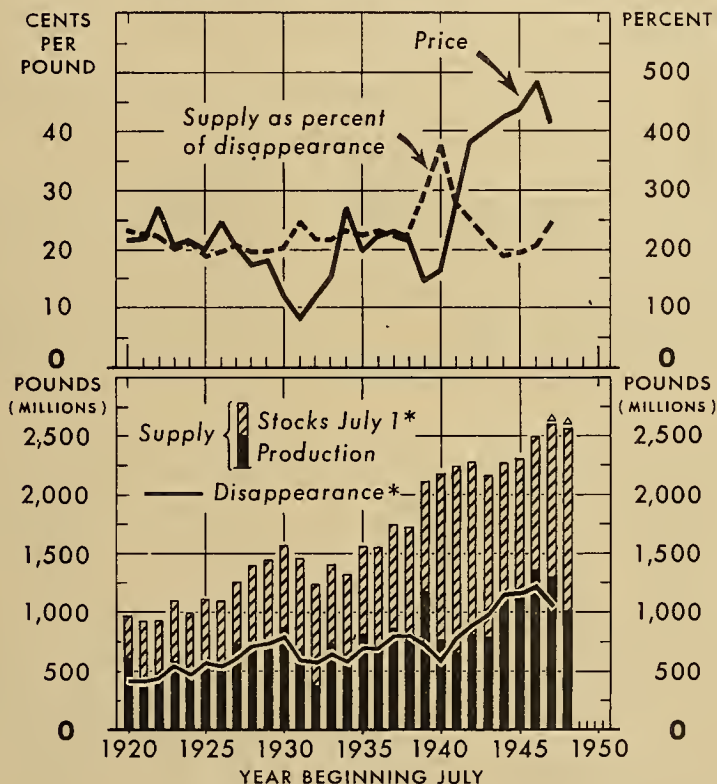
U.S. DEPOSITORY

BUREAU OF AGRICULTURAL ECONOMICS
UNITED STATES DEPARTMENT OF AGRICULTURE

TS -45

BAE

JULY 1948

FLUE-CURED TOBACCO: PRICE RECEIVED
BY FARMERS RELATED TO SUPPLY AND
DISAPPEARANCE, U. S., 1920-48

U. S. DEPARTMENT OF AGRICULTURE NEG. 46071-X BUREAU OF AGRICULTURAL ECONOMICS

Total supply of flue-cured in relation to disappearance in the 1947 marketing year was higher than in any of the 4 previous years while the season average price at 41.2 cents per pound was below each of the previous 3 years. The 1947 drop in disappearance occurred as the result of the 34 percent decline in exports from the previous year. Domestic consumption of flue-cured continued large as cigarette manufacture in July 1947-June 1948 set a new record. This year's production of flue-cured is now indicated to be approximately 23 percent smaller than last year, but a larger carry-over will result in little change in total supply in 1948-49 from that of 1947-48. Flue-cured exports are expected to increase as the result of the European Recovery Program, and domestic consumption will continue high in the year ahead. The active demand expected for the 1948 flue-cured crop will probably provide an average price above the support level of 43.9 cents per pound.

STATISTICAL SUMMARY

Item	Unit or base period	1947				1948				Last date available as percent of a year earlier
		March	April	May	June	March	April	May	June	
Prices received at auctions										
Maryland	Cents per lb.	1/	50.4	46.3	45.7	1/	1/	43.1	43.4	95
Parity prices										
Flue-cured	do	44.0	44.4	44.4	44.7	48.1	48.3	48.5	48.8	109
Burley	do	42.6	43.1	43.1	43.1	46.6	46.8	47.1	47.3	110
Maryland	do	34.4	34.8	34.6	34.8	37.6	37.8	38.0	38.0	109
Fire-cured	do	20.4	20.7	20.5	20.7	22.3	22.4	22.6	22.6	109
Dark air-cured, 35-36	do	16.4	16.6	16.5	16.6	17.9	18.0	18.1	18.1	109
Ve. sun-cured, 37	do	21.9	22.2	22.0	22.2	23.9	24.1	24.2	24.2	109
Index of Prices Paid	2/ 1919-28=100	150	152	151	152	164	165	166	166	109
	3/ 1934-38=100	192	194	194	195	210	211	212	213	109
Tax-paid Withdrawals										
Cigarettee, small 4/	Million	26,336	27,493	25,068	29,097	29,154	32,036	28,498	31,701	109
Cigars, large 4/	do	427	417	474	433	470	450	445	480	111
Chewing and Smoking Snuff	Million pounds	16	16	13	16	17	18	16	17	106
	do	3.1	3.5	3.5	3.3	3.6	3.9	3.3	3.3	100
Accumulated since Jan. 1										
Cigarettes, small 4/	Million	81,125	108,618	133,686	162,782	79,782	111,818	140,316	172,017	106
Cigars, large 4/	do	1,387	1,804	2,278	2,711	1,393	1,842	2,287	2,767	102
Chewing and Smoking Snuff	Million pounds	47	63	76	91	47	65	81	98	108
	do	9	13	16	20	11	15	18	22	110
Cigarettes, tax-free	Million	3,243	2,805	2,966	2,269	3,197	2,422	2,363		80
Accumulated since Jan. 1										
Tax-free	do	9,484	12,289	15,255	17,524	9,987	12,409	14,773		97
Tax-paid plus tax-free	do	90,609	120,907	148,941	180,306	89,769	124,227	155,088		104
Stocks, beginning of quarter 5/ (farm-sales weight)										
Flue-cured	Million pounds		1,541				1,804			117
Burley	do		1,206				1,173			97
Maryland	do		26				37			142
Fire-cured	do		162				195			120
Dark air-cured	do		91				91			100
Cigar, filler	do		145				114			79
Cigar, binder	do		134				151			113
Cigar, wrapper	do		17				18			106
Exports (farm-sales wt.)										
Flue-cured	Thou. lb.	49,743	27,361	17,305	30,282	18,439	25,051	26,179		151
Burley	do	2,842	7,230	2,863	2,776	648	3,292	5,485		192
Maryland	do	515	542	104	265	260	380	423		407
Fire-cured	do	1,465	2,588	3,829	2,989	1,225	1,469	3,025		79
Dark air-cured	do	659	348	1,197	591	313	515	765		64
Cigar	do	448	433	536	570	258	348	418		78
Total 6/	do	55,675	38,535	25,886	37,480	21,143	31,055	36,295		140
Accumulated since begin- ning of crop year										
Flue-cured	do	475,846	503,206	520,511	550,793	291,504	316,554	342,733		66
Burley	do	16,654	23,884	26,747	29,523	12,727	16,019	21,503		80
Maryland	do	1,347	1,889	1,993	2,258	1,059	1,439	1,862		93
Fire-cured	do	15,230	17,819	21,648	24,637	13,538	15,007	18,031		83
Dark air-cured	do	3,127	3,475	4,256	4,847	3,163	3,678	4,442		104
Cigar	do	2,437	2,871	3,407	3,977	4,021	4,369	4,787		141
Personal income 7/	Billion dollars	191	188	189	192	206	207	208		110
Index of Industrial Production 8/	1935-39=100	187	185	185	185	188	186	191	193	104
Percent of labor force Employed	Monthly	96.0	95.9	96.7	95.9	95.9	96.4	97.1	96.6	101

1/ Closed. 2/ All types except flue-cured 11-14 and Burley 31. 3/ Flue-cured 11-14 and Burley 31. 4/ Includes Puerto Rico. 5/ Stocks for April 1, 1948, are preliminary. 6/ Includes a small amount of Perique. 7/ Seasonally adjusted monthly totals at annual rate. 8/ Unadjusted.

TOBACCO SITUATION

Approved by the Outlook and Situation Board August 3, 1948

SUMMARY

United States growers are expected to produce 1 3/4 billion pounds of tobacco this year, 17 percent less than they harvested in 1947. An acreage reduction of almost one-sixth, due mainly to smaller allotments for flue-cured, fire-cured, and dark air-cured, is chiefly responsible for the decline expected in production. However, acreages of some of the cigar types also are down from 1947, probably because prices last season were lower than in the previous year or two.

Yields per acre are not expected to vary much from last year except for an 11 percent drop in the Georgia and Florida flue-cured area and a 5 percent decline in the Eastern North Carolina flue-cured area.

Although flue-cured production is down, total supplies for 1948-49 will only be about 3 percent below those of 1947-48 because of the large carry-over. Total supplies of Burley will be about 4 percent less than last year. Fire-cured and dark air-cured supplies for the 1948-49 marketing year are likely to be 3 and 8 percent below 1947-48. Maryland supplies for 1949 are expected to be as large as or slightly larger than those for 1948 since larger carry-over will offset the expected lower production. Supplies of cigar-filler and binder may be little changed from those of 1947-48 while supplies for cigar wrapper may be slightly larger.

Cigarette production reached a new record of 379 billion in fiscal year 1948. This is 18 billion or 5 percent above fiscal year 1947. All the rise went into increased domestic consumption since exports of cigarettes held about even.

The use of flue-cured in cigarettes continues large during the past year while domestic consumption of Burley is expected to set a new record, mostly because of the large cigarette manufacture. Maryland also finds its major outlet in American cigarettes.

Wholesale prices on several leading cigarette brands were advanced 5 percent in late July. This means, in many instances, an increase of 1 cent per package of 20 at the retail level. New or increased State taxes have also raised prices to some consumers. Cigarette purchases during the months ahead will probably be maintained by high employment and consumer income. Personal income during most of the first half of 1948 was running 9 percent above the same period in 1947. Since consumer requirements are expected to be near the current high level, cigarette production is likely to use about the same volume of flue-cured, Burley, and Maryland leaf as in 1947.

Marketings for the 1948 crop of flue-cured have started in Georgia and Florida, and demand is strong. Prices are running about 15 percent above the early season prices last year. This is well above the support price which is 10 percent above last season. An active demand during the 1948 marketing season is expected to provide an average price to flue-cured growers above the average loan rate of 43.9 cents per pound. Other types of tobacco for which support prices are determined as of October 1 are expected to have a higher loan rate than last year. July 15 parity was 5 percent above that of last September 15.

Cigar consumption in fiscal year 1948 was about 5,700 million, slightly below the preceding year. In the past decade, the high points in cigar consumption were reached in 1941-42 and 1942-43 at 6,100 and 6,000 million, respectively. In the first half of 1948, cigars retailing for 8 cents and less gained 8 percent over the same period of 1947, according to Internal Revenue data. Wholesale and retail price increases were recently put into effect on some large selling popular brands. With cigar consumption stabilized fairly well, total 1947-48 disappearance of binder and filler types (not including type 46 Puerto Rican) will be about as large as last year. Exports of cigar leaf have been substantially higher than a year ago.

Smoking tobacco manufacture during fiscal year 1948 is estimated at 107 million pounds, slightly above a year earlier but well below the years 1937 to 1941 when fiscal year production ranged from 190 to 205. Some consumers may be shifting to this form of tobacco consumption since the January-June 1948 production figure is estimated at 5 percent above that of January-June 1947. Substantial quantities of Burley are used in smoking and chewing tobacco manufacture.

The production of chewing tobacco is estimated at about 100 million pounds for the 1948 fiscal year, about the same as in the previous year. Plug manufacture requires mostly Burley and dark air-cured tobacco. Scrap chewing makes use of some cigar leaf. Greater exports of manufactured chewing and snuff occurred in the past year, mainly because substantial quantities were shipped under the Army Civilian Supply Program, mostly to Japan.

Snuff consumption during the fiscal year 1948 totaled 41.0 million pounds compared to 39.2 million in the previous year. Most tobacco used for snuff is fire-cured.

United States exports of tobacco for the year ending June 30, 1948, fell sharply. The estimated total of about 420 million pounds (export weight) was 30 percent below the previous year, and dollar value at approximately 210 million dollars was down 35 percent. Flue-cured exports, which generally account for around three-quarters of the total, fell more than a third. From July 1947 to May 1948, dark Virginia fell 5 percent and dark Kentucky and Tennessee fire-cured 25 percent, below the same months of a year earlier. One Sucker and Green River fell nearly 50 percent while Burley, Maryland, and cigar leaf were higher. Exports of Black Fat, which are composed mostly of dark air-cured and a small amount of fire-cured, also were above July 1946-May 1947.

Larger exports are expected in the coming year as the European Recovery Program gains momentum and the effects on trade are more widely spread. Allocations of grants to foreign participating countries for tobacco purchases totaled 21.8 million dollars at the end of July. Tobacco exports will also tend to increase as the result of export-subsidy programs. These subsidy programs are made possible by legislation that provides a portion of customs receipts to the United States Department of Agriculture to encourage agricultural exports.

Major provisions of the Agricultural Act of 1948 as they affect tobacco are discussed in a special section of this issue.

TOBACCO PRODUCTS

Cigarettes

Strong consumer demand resulted in a record output of 379 billion cigarettes in the year ending June 30, 1948. This was 18 billion or approximately 5 percent above the previous fiscal year. Virtually, all the increase was consumed in the United States. Exports, estimated at 22 billion, were just about the same as 1946-47; and other tax-free uses such as shipments to certain territories and sea stores, were not greatly different. Domestic consumption, as indicated by tax-paid withdrawals July 1947-June 1948 totaled 345 billion compared with 327 billion last year and 307 billion 2 years previous, 1945-46. Cigarette consumption has increased strikingly since prewar as higher purchasing power and employment have tended to increase both consumption per smoker and the number of smokers.

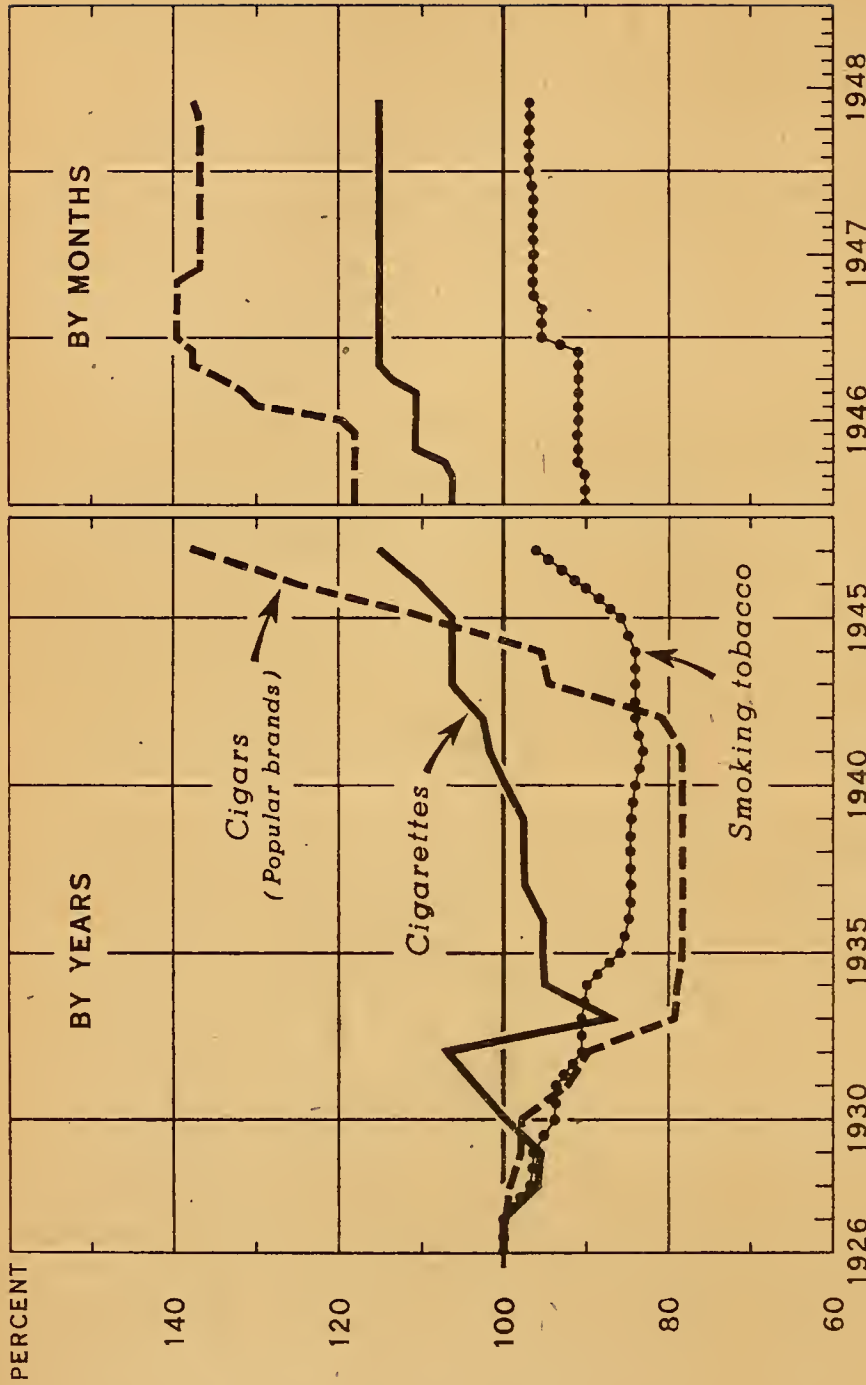
Cigarette consumption is expected to continue high during the last half of 1948 and will result in a new calendar year record. Wholesale prices of cigarettes were unchanged from November 1946 to June 1948. However, late in July, prices on several leading brands of cigarettes were advanced about 5 percent by manufacturers. This means that consumers will pay about a cent more per package of 20. The average retail price of cigarettes for 18 cities in June 1948 was 18.9 cents per package of 20, according to the Bureau of Labor Statistics. This average includes various taxes where applicable. If 1 cent were added to this average, making it 19.9 cents, this would be about one-fifth higher than the average of 34 cities in June 1946. Compared with the 1939 average for 34 cities, the 19.9 cents would be more than two-fifths greater. Prices paid by consumers have also risen in several areas because of new or increased State and local taxes that have become effective. New Jersey was the 39th State to tax cigarettes. The New Jersey tax became effective on July 1 at the rate of 3 cents per package of 20.

Cigars

Cigar consumption in the United States in fiscal 1947-48 was about 5,700 million compared with 5,750 million for 1946-47. Although 1947-48 cigar consumption exceeded the level of the late '30s by 2 or 3 hundred million, it fell below the recent peaks of 6,100 million for 1941-42 and the 6,000 million for 1942-43. Despite the high level of consumer incomes in recent years, the relative increase in cigar purchases has lagged far behind the increase in purchases of cigarettes, which are much more widely smoked, and to a considerable extent by women.

WHOLESALE PRICES OF SELECTED TOBACCO PRODUCTS

INDEX NUMBERS (1926=100)



SOURCE: BUREAU OF LABOR STATISTICS

U. S. DEPARTMENT OF AGRICULTURE

NEG. 46813 BUREAU OF AGRICULTURAL ECONOMICS

Wholesale prices of cigarettes, cigars, and smoking tobacco are higher than prewar with cigars showing the greatest relative increase. In mid-1948 wholesale prices of cigarettes were 19 percent over the 1935-39 average, cigars (popular brands) were up 76 percent, and smoking tobacco 14 percent. Wholesale prices of these tobacco products rose considerably from the end of the war through 1946. From late 1946 to mid-1948, cigarette prices remained stable. Although not yet shown in the index they rose 5 percent in late July. During the first half of 1947, wholesale cigar prices dropped slightly, but some popular brands have advanced recently. Smoking tobacco prices increased moderately during 1947.

The increases of the Federal excise tax rate in 1940 and 1942 are reflected in the yearly averages of prices at wholesale for cigarettes from 1939 to 1943. The Federal tax on cigars was raised in 1942 also, while that on smoking tobacco has been at the same rate since 1926.

Cigar prices have risen more than cigarette prices when compared with prewar. Recently, several of the large selling brands were increased about 4 percent at wholesale and cigars previously selling for 9 cents apiece at retail advanced to 10 cents. During the first half of 1948, tax-paid withdrawals of large cigars were 2 percent higher than in the same period of 1947. Cigars retailing for 8 cents and less gained 8 percent; those retailing for more than 8 cents and not more than 15 cents, dropped 2 percent; and those selling for more than 15 cents, gained 7 percent. Possible effects of the recent retail price increases on consumption of several brands in the middle-priced group probably will be negligible as long as incomes remain high. In recent months, sales of those priced 8 cents or less have made up a larger proportion of the total than a year ago. It seems likely that total cigar consumption during the last half of 1948 will equal or slightly exceed the same period of 1947.

Smoking Tobacco

The production of smoking tobacco during the year ending June 30, 1948, is estimated at 107 million pounds compared with 106 million pounds during the preceding year. The 1945-46 total was 129 million pounds. In the fiscal years from 1937 to 1941, production ranged between 190 and 205 million pounds. The greater popularity of cigarettes in times of high consumer income largely accounts for the decline in consumption of smoking tobacco since prewar. Some smokers tend to shift to pipe smoking and hand-rolled cigarettes when consumer incomes show significant declines. Smoking tobacco consumption during the first half of 1948 is estimated at about 5 percent above the same period in 1947. The Bureau of Labor Statistics consumers' price index in the first half of 1948 averaged 9 percent higher; and from January to May 1948, personal income was also 9 percent higher when compared with like periods in 1947. Although aggregate income during the first half of this year increased the same as consumers' prices, real income of some tobacco consumers declined. It is probable they have begun to use more smoking tobacco because it costs less than tobacco in other forms. Smoking tobacco production during the last half of 1948 will probably show a small increase over the last half of 1947.

Chewing

The production of chewing tobacco during the year ending June 30, 1948, is estimated at about 100 million pounds--about the same as in 1946-47 but 8 1/2 million pounds below 1945-46. Data for the first 10 months of the 1948 fiscal year show plug and fine-cut running slightly higher while scrap and twist were lower than the same period of the preceding year. Chewing tobacco consumption during the last half of 1948 is expected to be close to that of the same period in 1947.

More than 4 1/2 million pounds of chewing tobacco and snuff were exported during 1947-48 over 3 times that of the previous year. Well over half has been under Army Civilian Supply Program with over 85 percent going to Japan. Exports of smoking in packages also increased.

Snuff

Snuff consumption during the year ending June 30, 1948, totaled 41.0 million pounds, 1.8 million larger than the previous year and equal to that of 1945-46. Tax-paid withdrawals during the first quarter of 1948 were 15 percent above the same quarter of 1947. However, early in the year, wholesale prices increased about 25 percent; and in the second quarter, withdrawals were only 3 percent above those of the same period of 1947.

EXPORTS 1/

Exports of United States unmanufactured tobacco fell sharply during the year ending June 30, 1948. An estimated 420 million pounds were exported to foreign countries, about 30 percent less than the 591 million pounds exported in 1946-47. The 1947-48 shipments of tobacco to foreign destinations were valued at approximately 210 million dollars--approximately 35 percent below the 1947-48 total of 326 million dollars. Flue-cured, which generally accounts for around three-quarters of the total, declined nearly 35 percent. Burley, which in the last 2 years has been the second in rank, has been running above last year. Based on July 1947-May 1948 data, exports of Burley and Maryland were each 5 percent above the same months of 1946-47. Comparing the same periods, exports of dark Virginia dropped about 5 percent; dark Kentucky and Tennessee tobacco, 25 percent; and the 2 dark air-cured types, One Sucker and Green River, nearly 50 percent. Tobacco exported in the form of Black Fat, Dark African, and Water Baler was up 17 percent and the highest since the same period in 1939-40. This product is composed largely of the dark air-cured types but contains some fire-cured. Cigar tobacco exports in July 1947-May 1948 were nearly 50 percent larger than a year earlier, and are almost certain to establish the highest fiscal year total since records by type or class were begun in 1923-24.

The principal reason for the falling off of tobacco exports during the past year was the limited supply of dollars in the hands of foreign customers. This particularly affected the United Kingdom, China, and some countries of Western Europe. Governments in most of these countries exercise strict control over tobacco imports. In France, Sweden, Italy, and many other European countries tobacco is handled by a government monopoly.

In the United Kingdom, the government in 1947 allocated a reduced amount of dollar exchange for tobacco imports and in October stopped all purchases of leaf in the United States. The British Government sought to cut down tobacco consumption by raising the import duty, which increased the price of tobacco products to British smokers. A large price increase became effective in April 1947, and a small additional increase occurred a year later. Consumer expenditures on tobacco in the United Kingdom have risen steadily since 1938. In 1938, they comprised 4.1 percent of total expenditures on consumer goods but in 1947 accounted for 9.3 percent. By comparison United States consumers' expenditures on tobacco were close to 2.6 percent of total personal expenditures in 1938. In 1947, when total personal expenditures in United States were 2 1/2 times those of

1/ Quantities of tobacco in this section are stated in terms of export weight, which is less than the equivalent farm-sales weight.

1938, tobacco accounted for about 2.3 percent. On a per capita basis, the United States consumption is considerably above that of the United Kingdom. Most of this rise in tobacco expenditures in Britain was due to the 233 percent rise in prices. Volume of consumption was about 17 percent above 1938. Most of the rise in retail prices for tobacco products resulted from increases in import duties during and since the war. The duty is now between 4 and 5 times the 1938 rate. The import value per pound of United Kingdom unmanufactured tobacco imports in 1947 was about 2 1/3 times that of 1938. Calendar year 1946 was the peak consumption year and was about 27 percent above 1938. Since the sharp rise in prices following the duty increase in April 1947, consumption has declined. In the 12 months ending with April 1948, it was nearly one-fifth less than in the previous 12 months.

British stocks of tobacco at the end of April were 11 1/2 percent less than a year ago and substantially below prewar. Total British imports of unmanufactured tobacco during the 12 months ending June 30, 1948, were 217 million pounds, 41 percent less than in the same period of 1946-47. Tobacco imports from the United States were a little more than three-quarters of the total in the earlier period but dropped to three-fifths in 1947-48. Quantities imported from Southern Rhodesia and Nyasaland showed a sharp relative increase. Those from India were about the same but those from Canada were sharply lower.

United States exports of unmanufactured tobacco to the United Kingdom during July 1947-May 1948 were less than half those of the same months of 1946-47. In January-May 1948, they fell even more sharply below the same period of 1947. European countries, other than Britain, that showed very sharp decreases in imports from the United States in the January-May period compared with a year earlier were France, Belgium and Luxembourg, Netherlands, Denmark, Ireland, Sweden, and Italy. Portugal, Switzerland, and Norway got larger quantities while exports to Germany amounted to 5 1/2 million pounds in the most recent period and there were no exports during January-May 1947. Among the important non-European purchasers of American tobacco, China, Australia, and India got larger amounts while New Zealand got less.

During the fiscal year 1948-49, tobacco exports are expected to improve as the European Recovery Program gains momentum and as shipments under the export subsidy program on dark tobacco increase. A program to export United States and Puerto Rican tobacco to Bizonal Germany has also gone into operation and will tend to increase 1948-49 exports. United States tobacco exports to China may increase later in the year as a result of funds available under Title IV of the Foreign Assistance Act of 1948. Through July, the total of Authorizations for tobacco procurement for countries participating in the European Recovery Program was 21.8 million dollars. The United Kingdom was allocated 16.0 million dollars; Norway, 2.1 million; Denmark, 1.9 million; France, .8 million; Austria, .6 million; and Netherlands, .4 million.

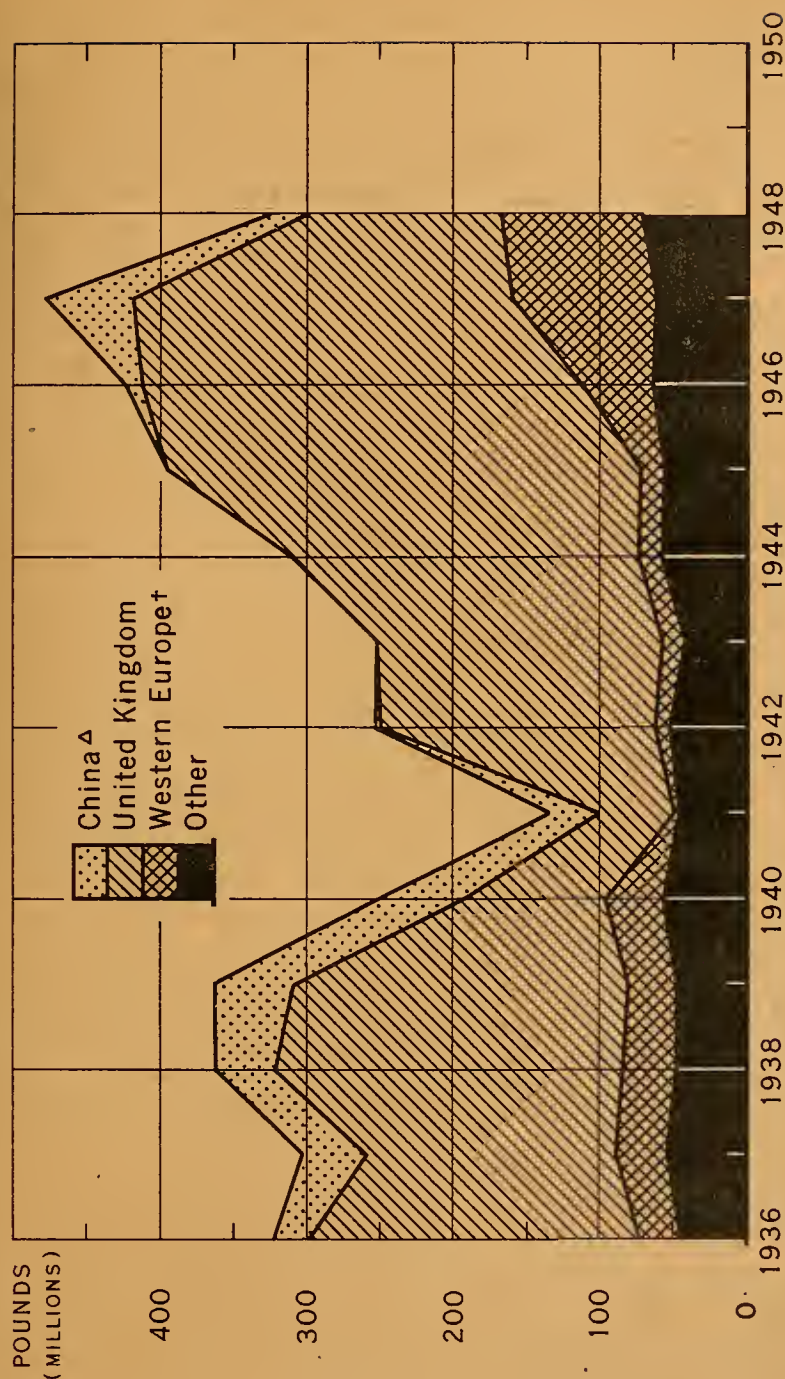
Under the export program for fire-cured and dark air-cured, substantial quantities of 1946 crop tobacco may move out. Payments will be made to exporters amounting to one-third of the f.a.s. sales price. In effect, the exporters would collect two-thirds of the price from the foreign buyer and one-third from the United States Department of Agriculture.

Table 1. United States exports of unmanufactured tobacco for specified periods by types and to principal importing countries

(declared weight)								
Type and country	Calendar year			1947 as percentage of		January-May		
	1934-38 average	1946	1947	1934-38 average	1946	1934-38 average	1947	1948
	Mil. lb.	Mil. lb.	Mil. lb.	Percent	Percent	Mil. lb.	Mil. lb.	Mil. lb.
Flue-cured	324.9	545.7	399.1	123	73	95.5	180.6	106.3
Burley	11.6	35.1	43.0	371	123	5.3	14.8	10.6
Maryland	5.5	6.4	6.3	115	98	2.6	1.9	1.8
Va. fire-cured	9.7	7.7	7.6	78	99	4.3	3.0	2.3
Ky. and Tenn.	53.7	30.6	21.3	40	70	29.5	8.2	6.2
One Sucker	.7	3.7	2.0	286	54	.2	.4	.4
Green River	3.0	2.5	1.5	50	60	2.0	.9	.4
Black Fat, etc.	9.0	5.7	4.9	54	86	3.8	1.7	2.3
Cigar	1.3	5.0	6.1	469	122	.4	1.9	1.9
Perique	.1	.2	.1	100	50	.1	.1	1/
Stems, tr., scrap	17.8	20.6	14.2	80	69	7.3	2.3	6.6
Total unmfed.	437.3	663.2	506.1	116	76	151.0	215.8	138.8
<u>Country of destination:</u>								
United Kingdom	213.9	364.3	198.0	93	54	49.2	93.5	26.6
France	21.0	27.7	10.2	49	37	16.7	1.0	.1
Belgium-Luxembourg	15.5	29.2	19.9	128	68	6.0	8.4	5.6
Netherlands	15.6	29.4	55.0	353	187	6.3	21.7	7.1
Germany	12.8	---	---	---	---	4.9	0	5.5
Portugal	4.8	10.0	6.9	144	69	2.2	5.3	8.4
Denmark	4.6	5.2	10.1	220	194	1.3	6.2	3.8
Eire	7.4	15.4	15.5	209	101	2.3	5.4	2.0
Switzerland	3.8	15.8	10.9	287	69	1.6	5.0	7.0
Norway	4.7	10.9	6.9	147	63	1.4	2.7	3.8
Sweden	7.2	12.1	16.6	231	137	2.1	6.4	2.8
Italy	1.1	1.3	19.1	1,736	6,367	.4	7.0	2.8
China	48.2	61.8	39.6	83	64	21.8	12.3	17.3
Australia	18.4	17.3	23.1	126	134	7.9	10.0	12.3
India	2.6	10.6	11.4	438	108	.9	8.4	9.2
New Zealand	2.5	6.4	5.3	212	83	.9	2.4	1.6
Other countries	53.2	46.8	57.4	108	123	25.1	20.1	22.9
Total	437.3	663.2	506.1	116	76	151.0	215.8	138.8

1/ Less than 500,000 pounds.

FLUE-CURED TOBACCO EXPORTS, FISCAL YEARS 1936-48* (EXPORT WEIGHT)



*1948 ESTIMATE BASED ON 11 MONTHS DATA

†INCLUDES HONG KONG AND KWANTUNG

‡SWEDEN, NORWAY, DENMARK, NETHERLANDS, BELGIUM AND LUXEMBOURG, SWITZERLAND, FRANCE, PORTUGAL, ITALY, GERMANY, AUSTRIA AND IRELAND

U. S. DEPARTMENT OF AGRICULTURE

NEG. 48814 BUREAU OF AGRICULTURAL ECONOMICS

Flue-cured exports dropped from the 1946-47 record high of 480 million pounds to an estimated 320 million pounds during 1947-48. The sharpest declines occurred in exports to China and the United Kingdom mostly because of the limited supply of dollars. In Western Europe greater exports to a few countries largely offset the smaller shipments to others of importance, but it is probable they would have been larger if they had not been restricted by lack of dollar exchange in some of these countries. Flue-cured is used largely in cigarettes which are becoming increasingly popular over much of the world. The European Recovery Program improves the prospects for higher flue-cured exports in 1948-49 than in 1947-48.

Funds will be used from that portion of customs duties, which, by law, are made available to encourage export of agricultural commodities. Funds from the same source will be used to partly finance exports of several million pounds of tobacco to Germany. This program has been put into effect with an agreement between the Joint Export-Import Agency of the German Military government, Frankfurt, Germany and the Administrator of the Production and Marketing Administration, United States Department of Agriculture. Sales arrangements under both export programs had to be completed by June 30, 1948, and the tobacco must be exported prior to December 31, 1948. Under the German export program, not less than 50 percent of the purchases were required to be made from stocks pledged to the Commodity Credit Corporation as collateral for nonrecourse loans.

FLUE-CURED, TYPES 11-14

Production and Supplies

Total acreage of flue-cured is estimated at 888,500, 23 percent lower than last year. The greatest relative decrease was 26 percent for type 13 (South Carolina and Border North Carolina). The smallest relative decrease was in type 14 (Georgia and Florida) which was 21 percent lower.

Production of flue-cured tobacco in 1948, as of July 1, was estimated at 1,010 million pounds, 23 percent less than the 1,317 million produced last year. Production by types shows wider variations from 1947 than acreages. Per acre yields of types 11 and 13 are indicated to be higher and of types 12 and 14 to be lower than last year. Production of type 11 (Old Belt N. C. and Virginia) may be only about 16 percent below last year while type 14 (Georgia and Florida) may fall 29 percent lower. Acreage allotments and quotas are in effect on flue-cured and largely account for the reduction in acreage and production this year. The total 1948 acreage allotment of 909,000 was about 27 percent less than the allotted acreage in 1947.

Carry-over of flue-cured on July 1, the beginning of the 1948-49 marketing year, is estimated at about 1,554 million pounds compared with 1,287 million last year. This is the second highest carry-over on record. The smaller 1948 production plus carry-over gives a total supply for the 1948-49 marketing year of 2,564 million pounds--40 million pounds below the total supply for 1947-48.

Consumption

Flue-cured disappearance during July 1947-June 1948 is estimated at 1,050 million pounds--13 percent below the previous year. The drop was entirely due to the decline in exports as domestic consumption, principally in cigarettes, was large. Approximately 379 billion cigarettes were manufactured in the year ending June 30, setting a new fiscal year record. Domestic consumption of flue-cured during the same period is estimated at 685 million pounds compared with 662 million pounds last year. Exports of flue-cured during the past year fell to their lowest point in 4 years. The estimated marketing year total is 365 million pounds (farm-sales weight) compared with 551 million pounds for 1946-47. Prior to the war, more than half of the flue-cured crop was exported. Exports during the 2 years ending June 1947 were equal to about two-fifths of the 1945 and 1946 production of flue-cured. However, during the 1947-48 marketing year, exports were only equal to 28 percent of the 1947 crop.

The much smaller takings of the United Kingdom during 1947-48 were the major factor in the lower exports of flue-cured. Other important foreign customers taking smaller quantities of flue-cured were Netherlands, Belgium and Luxembourg, Denmark, Sweden, Ireland, China, and India.

In 1948-49, cigarette production is expected to remain high and will probably take as large a volume of flue-cured tobacco as in 1947-48. Flue-cured exports are expected to be larger as the European Recovery Program gains momentum. Funds allocated thus far for tobacco by the Economic Cooperation Administration have been mostly to the United Kingdom, whose requirements are mainly for flue-cured. Flue-cured exports may increase substantially over last year's 365 million pounds. If domestic use in 1948-49 equals 1947-48 and exports increase substantially, carry-over on July 1, 1949, will be less than July 1, 1948.

Prices and Marketing

Auctions for the 1948 flue-cured crop began on July 22 in the Georgia and Florida markets. Prices through July 31 averaged 51.8 cents per pound for sales of 61 1/4 million pounds. This was 15 percent above the early season prices last year. This, type 14, season average price was 37.8 cents last year--13 percent lower than in 1946.

Auction markets for type 13, South Carolina and Border North Carolina flue-cured, open August 3; for type 12, Eastern North Carolina, August 19; and for types 11a and 11b, Middle and Old Belts, on September 2 and 13.

Table 2.-Flue-cured tobacco: Domestic supplies, disappearance, and season average price, average 1934-38, annual 1939-48 ^{1/}

Year	Production	Stocks July 1	Total supply	Disappearance : year beginning : July 1	Average price per pound
	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Cents
Average 1934-38	741.0	844.9	1,585.9	704.3	22.9
1939	1,170.9	946.3	2,117.2	707.5	14.9
1940	759.9	1,409.7	2,169.6	576.7	16.4
1941	649.6	1,592.9	2,242.5	783.0	28.1
1942	811.7	1,459.5	2,271.2	892.4	38.4
1943	790.2	1,378.8	2,169.0	980.2	40.2
1944	1,087.3	1,188.8	2,276.1	1,149.8	42.4
1945	1,173.5	1,126.3	2,299.8	1,152.4	43.6
1946	1,352.0	1,147.4	2,499.4	1,212.6	48.3
1947 ^{2/}	1,317.5	1,286.8	2,604.3	3/1,050.3	41.2
1948 ^{2/}	1,010.3	3/1,554.0	3/2,564.3		

^{1/} Farm-sales weight.

^{2/} Preliminary.

^{3/} Estimated.

The support price level at 90 percent of parity as of July 1 is 43.9 cents per pound--10 percent higher than the 40-cent level of last year. The 1947 season average price realized by growers was 41.2 cents per pound compared with 48.3 cents in the 1946 season. The increase in flue-cured parity prices was due to the increase in prices paid by farmers for items used in family living and production above last year. The support level for untied tobacco in the Georgia and Florida markets is 4 cents lower than that for tied tobacco.

An active demand is expected to maintain flue-cured prices generally above the loan rate and a much smaller quantity of the crop is likely to be placed under Government loan. Under the 1947 Program, 232 million pounds or about 17 percent of the flue-cured crop were placed under loan. Of the total flue-cured placed under loan in the past 2 seasons, around four-fifths has been sold by the Stabilization Corporation, which is the farmers' cooperative formed in 1946 for the purpose of making loans and arrangements for redrying, storage, and disposition of such tobacco. Sales were made through domestic and export trade channels.

BURLEY, TYPE 31

Production and Supplies

In July, the 1948 production of Burley was estimated at 474 million pounds compared with 484 million last year. This is the smallest in the last 5 years. Decreases of 3 to 4 percent were in prospect in Kentucky and Tennessee, the 2 largest Burley producing States. All other States, except West Virginia, showed increases. In Kentucky and Tennessee, estimated per acre yields were off 1 and 3 percent, respectively, from last year due to dry weather which retarded the setting of plants and subsequent development. Total Burley acreage is estimated at 409 thousand acres--only about 1 percent less than last year. This was about the same percentage reduction as in the total farm allotments between 1948 and 1947.

Carry-over of Burley on October 1, the beginning of the 1948-49 marketing year, is now estimated at about 900 million pounds--approximately 40 million pounds less than last October 1 but still the second highest on record. Total supply (production plus carry-over) for 1948-49 will probably be about 1,374 million pounds compared with 1,425 million last year. Burley supplies for 1948-49 are nearly 100 million pounds below the peak level reached 2 years ago.

Consumption

The total disappearance of Burley during the marketing year ending September 30, 1948, is now estimated at 525 million pounds, virtually the same as the record of the previous year. Present estimates show that domestic consumption will increase 5 to 10 million pounds above last year's 477 million. Exports of Burley, on the other hand, are now estimated at from 5 to 10 million pounds lower than last year's record of 50 million pounds (farm-sales weight). As in the case of flue-cured, the large cigarette production is mainly responsible for the record level of domestic Burley use. Quantities consumed by smoking and chewing, other important uses for Burley, have shown very little change during the 1947-48 marketing

Table 3.- Burley tobacco: Domestic supplies, disappearance, and season average price; average 1934-38, annual 1939-48 1/

Year	Production	Stocks October 1	Total supply	Disappearance year beginning October 1	Average price per pound
	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Cents
Average 1934-38	287.2	700.9	988.1	314.5	22.2
1939	395.3	684.0	1,079.3	317.1	17.3
1940	376.6	762.0	1,138.8	340.8	16.2
1941	336.9	798.0	1,134.9	379.6	29.2
1942	343.5	755.3	1,098.8	412.8	41.8
1943	392.1	686.0	1,078.1	426.9	45.6
1944	590.6	651.2	1,241.8	482.8	44.0
1945	577.2	759.0	1,336.2	482.9	39.4
1946	614.0	853.3	1,467.3	526.5	39.7
1947 <u>2/</u>	484.3	940.8	1,425.1	<u>3/</u> 525.1	48.3
1948 <u>2/</u>	473.6	<u>3/</u> 900.0	<u>3/</u> 1,373.6		

1/ Farm-sales weight. 2/ Preliminary. 3/ Estimated.

Table 4.- Maryland tobacco: Domestic supplies, disappearance, and season average price, average 1934-38, annual 1939-48 1/

Year	Production	Stocks January 1 of following year	Total supply	Disappearance year beginning Jan. 1 of the following year	Average price per pound
	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Cents
Average 1934-38	27.5	38.4	65.9	27.5	19.7
1939	32.8	36.3	69.1	25.9	21.1
1940	32.6	43.2	75.8	30.8	33.0
1941	31.2	45.0	76.2	28.5	30.1
1942	28.1	47.7	75.8	32.0	56.5
1943	20.8	43.8	64.6	27.0	45.3
1944	38.2	37.6	75.8	29.3	55.5
1945	18.4	46.5	64.9	32.5	57.0
1946	46.2	32.4	78.6	33.8	44.5
1947 <u>2/</u>	38.4	44.8	83.2	<u>3/</u> 36.2	
1948 <u>2/</u>	36.4	<u>3/</u> 47.0	<u>3/</u> 83.4		

1/ Farm-sales weight. 2/ Preliminary. 3/ Estimated.

year from the preceding year. Exports of manufactured chewing tobacco and snuff have been somewhat larger mainly due to the sizeable quantities going to Japan under the Army Program. Exports of unmanufactured Burley in the 5 months, January-May 1948, were 28 percent below the same period last year. None was exported by the United States in that period to such usually important foreign takers as France, Italy, and Sweden; while The Netherlands and Portugal, also important users of Burley, took considerably less than in January-May 1947.

In the 1948-49 marketing year, total disappearance may be as high in 1947-48. Cigarette consumption is likely to be maintained at a relatively high level and exports of Burley will be favorably affected as trade is stimulated by the European Recovery Program. Larger than prewar quantities of Burley will be exported if the American type blended cigarette continues popular in Europe.

Higher Price Supports Likely

The 1947 support price for Burley was 40.3 cents per pound. This was 90 percent of 44.8 cents per pound, the September 15, 1947, parity price. Burley parity as of July 15 was 47.3 cents per pound. It is likely that the parity price for September 15, 1948, will not greatly differ from this figure. If it should be the same as the July 15 figure, the average Burley loan rate would be 42.6 cents per pound.

Prices received by growers last season averaged 48.3 cents per pound, 20 percent above the support level. The quantity placed under loan was close to 38 million pounds. In the previous season, 148 million pounds of Burley were received by Associations for Government loans. In mid-July, about 100 million pounds (farm-sales weight) remained unsold.

A strong demand for Burley in the season ahead will probably maintain average prices above the loan rate.

MARYLAND, TYPE 32

Production and Supplies

On July 1, production of Maryland tobacco was estimated at 36.4 million pounds, 5 percent less than last year. Acreage was estimated at 47,000-- about 2 percent below last year. The 1948 goal recommendation called for a 15 percent decrease. Per acre yield estimated on July 1 were down about 3 percent from last year but above the 1937-46 average.

Total supply for 1947 of 83.2 million pounds included 1947 production of 38.4 million pounds, and carry-over on January 1, 1948 of 44.8 million. This was 4 to 5 million pounds above supplies for the previous year and the highest on record. Stocks in the hands of dealers and manufacturers next January 1 are likely to be around 47 million. If 36 million pounds is harvested this year, total supplies for 1949 will be as high as those for the current year.

Consumption

Maryland tobacco finds its largest use in American cigarettes. The record-breaking cigarette manufacture this year will probably increase domestic use about a million pounds above last year's level of 27 million.. Exports, though slightly below last year in January-May, may be from 7 to 8 million pounds (farm-sales weight) for the year as a whole. In the last 2 years, exports averaged about 6 2/3 million pounds. Some Maryland will be shipped to Germany under the export subsidy program. Largest foreign importers of Maryland in the last 2 years were Switzerland and the Netherlands. France has not taken as much in the last 2 years as in prewar.

Prices and Marketings

Maryland tobacco is sold at auction and in the Baltimore hogshead market. By far the largest quantity in recent years has been auctioned at loose leaf markets. The 1947 crop is now being sold and the marketings are well along. Average prices have been considerably above the announced support level of 32.6 cents per pound, which is 90 percent of parity on October 1, 1947. From the beginning of the auctions on May 11 through July, almost 27 3/4 million pounds have been auctioned at an average price of 42.9 cents per pound. The 1946 crop average was 44.5 cents per pound. Weekly averages have fluctuated moderately. After a decline from the June average of 43.4 cents per pound to 41.8 cents in early July, prices rose then again fell off during the last week of July. Weekly average auction prices last year were higher in the latter half of the marketing season than during the first half. The majority of auction warehouses are scheduled to close August 20.

About 2.9 million pounds have been received in the Baltimore hogshead market for the season through July.

FIRE-CURED, TYPES 21-24

Production and Supplies

Estimated production in July of fire-cured tobacco was 67.5 million pounds, 21 percent less than the 85.8 million produced in 1947. The sharpest drop occurred in type 22 (Clarksville and Hopkinsville Belt), amounting to nearly 25 percent. Type 23 (Paducah and Mayfield Belt), was down 19 percent while the Virginia fire-cured was only 9 percent below last year. The decline in type 24, (the small Henderson Stemming Belt) was insignificant. The acreage estimates showed a more uniform decline ranging from 21 to 26 percent for types 21-23. The total estimated acreage on July 1 was 63,700 acres, 24 percent below last year. Individual farm allotments were cut 35 percent. Since producers planted substantially fewer acres in 1947 than the acreage allotted, however, the 35 percent decrease in allotted acreage did not bring about a comparable reduction in plantings. Yields per acre are estimated to be higher except for type 24; and in the case of the Virginia fire-cured, may be 15 to 20 percent above a year ago.

Stocks of fire-cured tobacco on October 1, the beginning of the marketing year 1948-49, are expected to be around 154 million pounds--8 percent higher than last October and the highest in 4 years. Because of the substantially lower 1948 production, total supplies for 1948-49 at 222 million pounds may be about 7 million pounds less than those for the current year but are in excess of anticipated requirements.

Consumption

Total disappearance during the current marketing year may reach 75 million pounds--about 5 million above last year but below 1944-45 and 1945-46. The 1947-48 disappearance is only three-fifths of the 1934-38 average, mostly because of the drastic decline in exports of these types since prewar. Exports this year are not likely to exceed 37 million pounds (farm-sales weight) which, though slightly above last year, is barely more than half of the prewar average. Shortage of dollar exchange available to foreign customers and the sharply increased prices above prewar are the major factors contributing to the decline in exports. Domestic consumption during 1947-48 is likely to be 2 or 3 million pounds above the 36 million pounds consumed in 1946-47. Use in snuff manufacture is the most important domestic outlet for fire-cured tobacco.

The total 1948-49 disappearance is not likely to be markedly different from the current year although exports may improve somewhat because of the export subsidy programs and the effects of the European Recovery Program. Payments will be made to exporters under two programs, one for dark tobacco, types 21-24 and 35-36 and one applying specifically to Germany. Payments amount to one-third of the f.a.s. price; or in the German program, the f.o.b. invoice price. The Dark Tobacco Export Program was designed to export several million pounds of 1946 fire-cured and dark air-cured tobacco. Sales arrangements had to be made with the Tobacco Branch of the Production and Marketing Administration by June 24 and the tobacco must be exported before the end of 1948. Anticipated fire-cured exports to Germany under the German program are a small proportion of the total. In both programs, the Department of Agriculture is using funds made available by legislation from annual customs receipts to encourage exports of agricultural commodities.

During the 11 months ending with May 1948, Switzerland, Belgium, Luxembourg, Denmark, and the United Kingdom took smaller quantities of fire-cured tobacco than in the same period of the preceding year.

Other important foreign users such as the Netherlands, Sweden, and Norway took more.

1948 Price Support

Since price supports for fire-cured are related to the average Burley loan rate which is likely to be above that of last year, prices received by growers of fire-cured tobacco for the 1948 crop will probably exceed those for 1947. The 1947 average loan rate for fire-cured was 30.2 cents per pound and the average price received by growers was 29.5 cents. If the Burley parity price at the beginning of the 1948 marketing season is equal to the July 15 parity price, the loan rate will be 42.6 cents. The fire-cured rate which is set at 75 percent of the Burley loan rate, will be 32.0 cents.

Fire-cured tobacco placed under Government loans during the 1947 season totaled 31.3 million pounds--equal to 36 percent of the 1947 crop. A little more than half of the 1947 crop of the Paducah-Mayfield Belt, type 23, was pledged for Government loans.

Table 5.- Dark tobacco: Domestic supplies, disappearance, and season average price, average 1934-38, annual 1939-48 1/

Year	Production:	Stocks : October 1:	Total : supply :	Disappearance: year beginning: October 1	Average price per pound
	Million pounds	Million pounds	Million pounds	Million pounds	Cents
<u>Fire-cured</u>					
Total types 21-24					
Average					
1934-38	110.2	194.2	304.4	123.0	10.2
1939	99.3	136.2	235.5	93.9	10.6
1940	106.5	141.6	248.1	64.2	9.5
1941	69.7	183.9	253.6	69.0	14.1
1942	71.5	184.6	256.1	76.3	17.1
1943	64.9	179.8	244.7	71.2	23.4
1944	66.1	173.5	239.6	107.8	24.5
1945	58.3	131.8	190.1	85.2	31.5
1946	108.9	104.9	213.8	70.4	26.0
1947 <u>2/</u>	85.8	143.4	229.2	<u>3/</u> 75.0	29.5
1948 <u>2/</u>	67.5	<u>3/</u> 154.2	<u>3/</u> 221.7		
<u>Dark air-cured</u>					
Total types 35-37					
Average					
1934-38	35.5	62.8	98.3	39.0	9.4
1939	44.2	56.1	100.3	34.7	7.3
1940	42.5	65.6	108.1	33.6	7.7
1941	31.5	74.5	106.0	42.0	12.0
1942	35.2	64.0	99.2	33.9	15.2
1943	30.0	65.3	95.3	37.6	27.2
1944	44.9	57.7	102.6	42.2	23.3
1945	43.6	60.4	104.0	43.6	25.2
1946	49.6	60.4	110.0	37.3	22.5
1947 <u>2/</u>	37.3	72.7	110.0	<u>3/</u> 40.0	25.8
1948 <u>2/</u>	31.5	<u>3/</u> 70.0	<u>3/</u> 101.5		

1/ Farm-sales weight.2/ Preliminary.3/ Estimated.

DARK AIR-CURED, TYPES 35-37

Production and Supplies

The 1948 estimated production of dark air-cured tobacco is 31.5 million pounds--15 1/2 percent less than last year. One Sucker, type 35; and Green River, type 36; were down 14 and 24 percent, respectively, while Virginia sun-cured, type 37, increased 26 percent. The smaller production was mostly due to a 15 1/2 percent drop in total acreage. Estimated acreage of types 35 and 36 fell 17 and 22 percent. Type 37, which makes up only about one-eighth of the total, increased nearly 31 percent. Estimated per acre yields in July were slightly higher than last year for type 35 but slightly lower for the other 2 dark air-cured types.

Stocks of dark air-cured tobacco on October 1, 1948, are expected to be around 70 million pounds compared with 73 million on October 1, 1947, but higher than in any other year since 1941. These estimated stocks plus the 31 1/2 million pounds estimated production for this year give a total supply of 101 1/2 million pounds for 1948-49. This is 8 1/2 million less than in the previous 2 years. The 110 million pounds in 1945-46 and 1946-47 exceeded any previous year since 1934.

Consumption

The estimated total disappearance during the current marketing year may reach 40 million pounds. Domestic use, which is mostly in chewing and some in snuff, will probably be close to 29 million pounds--approximately the same as last year. Exports of dark air-cured may go to 10 to 11 million pounds (farm-sales weight) this year compared with a little less than 8 million last year. This increase will be mostly due to the export subsidy program. Exports for October through May were running substantially below the same period last year.

During 1948-49, little change is expected in either the domestic use of the dark air-cured types, or in exports.

1948 Price Support

Dark air-cured support prices also are related to the average Burley support price. If the loan rate for Burley is 42.6 cents (assuming September 15 Burley parity is equal to July 15 and multiplying by 90 percent) the loan rate for dark air-cured types will be 66 2/3 percent of this or 28.4 cents. This would be nearly 6 percent above last season's average loan rate of 26.9 cents. Growers' receipts for the 1947 dark air-cured crop averaged 25.8 cents per pound, the highest on record. In view of the higher loan rate that probably will be applicable on this year's crop, grower prices are likely to exceed those of last season.

About 14 1/2 million pounds or almost two-fifths of the 1947 crop were placed under Government loan. The dark air-cured and fire-cured stocks on which Commodity Credit advanced loans, have been reduced by operations under the export subsidy programs.

Table 6.- Cigar tobacco: Domestic supplies, disappearance, and season average price, average 1934-38, annual 1939-48 1/

Year and type	Production:	Stocks : October 1 : 2/	Total : supply	: Disappearance : : year beginning : : October 1 2/ :	Average : price per : pound
	<u>Mil. lb.</u>	<u>Mil. lb.</u>	<u>Mil. lb.</u>	<u>Mil. lb.</u>	<u>Cents</u>
Total filler types:					
41-44 <u>3/</u>					
average 1934-38	48.9	159.9	208.8	54.4	10.4
1939	63.1	141.9	205.0	54.0	11.7
1940	64.7	151.0	215.7	58.7	11.9
1941	71.2	157.0	228.2	61.4	12.4
1942	53.8	166.8	220.6	67.0	13.2
1943	47.0	155.6	200.6	55.2	18.6
1944	58.8	145.4	204.2	61.3	19.5
1945	49.9	142.9	192.8	64.1	34.0
1946	64.4	128.7	193.1	70.9	32.8
1947 <u>4/</u>	65.1	122.2	187.3	<u>5/</u> 65.0	30.6
1948 <u>4/</u>	64.1	<u>5/</u> 122.3	<u>5/</u> 186.4		
Total binder types:					
51-56					
average 1934-38	41.8	165.1	206.9	60.5	12.5
1939	63.3	116.6	179.9	45.0	16.6
1940	67.9	134.9	202.8	66.1	14.5
1941	61.6	136.7	198.3	60.4	16.9
1942	55.1	137.9	193.0	66.3	20.3
1943	51.0	126.7	177.7	69.2	30.3
1944	57.2	108.5	165.7	63.4	30.9
1945	62.1	102.3	164.4	60.9	47.7
1946	73.8	103.5	177.3	53.6	52.7
1947 <u>4/</u>	65.7	123.7	189.4	<u>5/</u> 60.0	43.3
1948 <u>4/</u>	59.2	<u>5/</u> 129.4	<u>5/</u> 188.6		
Total wrapper types:					
61-62					
average 1934-38	8.4	11.8	20.2	9.3	78.3
1939	11.4	10.1	21.5	7.9	67.7
1940	9.5	13.6	23.1	10.4	77.6
1941	10.1	12.7	22.8	9.6	98.4
1942	9.2	13.2	22.4	9.4	132.1
1943	10.0	13.0	23.0	8.7	168.0
1944	11.3	14.3	25.6	10.9	196.0
1945	11.2	14.7	25.9	12.3	197.0
1946	12.5	13.6	26.1	12.7	234.0
1947 <u>4/</u>	13.3	13.4	26.7	<u>5/</u> 12.6	262.0
1948 <u>4/</u>	14.5	<u>5/</u> 14.1	<u>5/</u> 28.6		

Farm-sales weight. 2/ Stocks and disappearance for types 56, 61, and 62 are of July 1. 3/ A small quantity of type 45 for 1939 and 1940 not included. Preliminary. 5/ Estimated.

CIGAR TOBACCO

Production and Supplies

Continental cigar filler acreage on July 1 was estimated at 43,700--down 2 1/2 percent from last year. Ohio's types 42-44 acreage dropped relatively more than the Pennsylvania type 41. Goal recommendations were for a 25 percent increase in Ohio and the same acreage in Pennsylvania. The production for types 41-44 was estimated at 64.1 million pounds -- only 1 million less than last year. Per acre yields were up slightly in Pennsylvania and the same as last year in Ohio.

Indicated filler production this year plus probable stocks on October 1 of 122 million pounds give a total supply of around 186 million pounds for the 1948-49 marketing year. This is nearly the same as for last year when the supply of domestic filler was lowest on record.

Puerto Rican, type 46, shipments of tobacco to the United States, January-May 1948, were 7 1/2 percent less than during January-May 1947. Total stocks of Puerto Rican tobacco on April 1, 1948, were 67 million pounds (farm-sales weight), 12 percent below last April 1. Of these total stocks, 43 million pounds were held in the United States or 13 percent less than on April 1, 1947.

Cigar binder acreage in 1948 is estimated at 38,700 acres, down 11 percent from last year. Sharp drops occurred in New York and Pennsylvania Havana Seed, type 53, and Southern Wisconsin, type 54. The considerably lower prices received by growers for 1947 crops of these types is mostly responsible for the cut in acreage. The Connecticut Valley Havana Seed, type 52, was the same as last year, but Broadleaf acreage, type 51, was down 10 percent and Northern Wisconsin, type 55, indicated acreage fell off 8 percent. Slightly higher per acre yields than last year seemed evident in all binder types except Connecticut Valley Havana Seed, which may be 4 percent lower than last year.

The 1948 total binder production at 59.2 million pounds may be 10 percent below 1947 and the lowest in 4 years. Carry-over next October 1 is likely to be close to 130 million pounds. This is the highest total since 1942, but trends in October 1 binder stocks have varied widely since that time. Connecticut Valley Broadleaf stocks, after declining sharply to a record low in 1944, increased steadily to 1947. Connecticut Valley Havana Seed stocks declined steadily from their 1942 peak to a record low of 1946 and edged up slightly in 1947. Southern Wisconsin, type 54, stocks hit a record low in 1945 but moved up sharply in 1946 and 1947. Northern Wisconsin, type 55, stocks fell from a relatively high level in 1942 to a low point in 1946 but increased sharply by October 1947.

If binder production this year is as estimated in July and October 1948 stocks approximate 130 million pounds, total supply of cigar binder types for 1948-49 will be just about the same as the 189 million pounds for 1947-48. Supplies of binder in the 3 marketing years beginning in 1940 ranged from 193 to 203 million pounds; but by the marketing years, 1944-45 and 1945-46, had dropped to around 165 million pounds. This drop contributed to record-breaking prices for most binder for the crops of 1945 and 1946.

Both estimated acreage and production of shade-grown wrapper were up around 9 percent above last year. The total expected acreage of about 15,000 compares with 13,700 last year. Production of Georgia-Florida, type 62, may be nearly 14 percent above last year while Connecticut Valley, type 61, is estimated to be about 6 percent larger. While Georgia-Florida showed less percentage increase in acreage, its per acre yield is expected to exceed last year while the Connecticut Valley, type 61, per acre yield may fall short of last year. Total production of both types of 14 1/2 million pounds this year plus estimated July 1 stocks of approximately 14 million pounds will mean a total supply for 1948-49 of around 28 1/2 million pounds. This is about 1 3/4 million pounds greater than supplies for 1947-48 and is probably the largest for both types combined since the middle '20s. Production of both domestic wrapper types have expanded in recent years to make up for deficiencies in the supply of imported wrapper. Sizeable quantities of wrapper formerly came from the Netherlands Indies. Some progress is being made in restoring production in this area where little has been grown since the Japanese invasion. About one-third of a million pounds of Netherlands Indies wrapper was imported for consumption in January-April this year. The annual average 1939-41 of these imports was 2.2 million pounds (declared weight).

Consumption

Cigar filler, types 41-44, disappearance during the current marketing year is estimated at around 65 million pounds or about the same as the average for the previous 3 years. Fair-sized quantities of Puerto Rican filler tobacco will be shipped to Germany under the export subsidy program by the end of 1948.

Cigar binder disappearance during the 1947-48 marketing year is estimated at about 60 million pounds. This is a little above the average of the previous 3 years. Cigar tobacco exports have been heavier during the current marketing year and may total between 6 and 7 million pounds (farm-sales weight) compared with 5 million pounds last year. Some domestically produced cigar tobacco will be exported to Germany under the export subsidy program.

Cigar wrapper, types 61-62, consumption during July 1947-June 1948 is estimated at close to 12 million pounds or about the same as in the preceding year.

1947 Season Prices

The Pennsylvania Seedleaf 1947 season average price was 30.5 cents per pound compared with 32.5 cents for the 1946 crop. Marketings were much later than usual as growers were reluctant to sell at prices offered earlier in the season. The season average for Ohio filler was 31.0 cents, 14 percent below that for the 1946 crop. The Connecticut Valley binder types showed considerable price variation from the preceding year because of pole-sweat damage to the type 51 Broadleaf crop. Broadleaf averaged only 51.0 cents per pound compared with 74.0 cents in the preceding season while the Havana Seed, type 52, averaged 73.3 cents for the 1947 crop or 6 percent above the previous year. The New York and Pennsylvania Havana Seed price average was 35.1 cents for 1947 compared with 39.9 cents a year earlier. The greatest drop in the price for type 53 occurred in the New York producing area. The Southern Wisconsin, type 54, binder price showed a drastic decline from the previous season. The 1947 crop average was 22.3 cents--a drop of more than 35 percent. The Northern Wisconsin, type 55, also declined. The 1947 season average price was 35.2 cents per pound--23 percent lower than the 1946 crop average. Government price support operations were necessary in the Wisconsin area in both 1946 and 1947. The 1947 season prices of each of the cigar types (42-44, 51-56) averaged above 90 percent of "parity equivalent." Also, Pennsylvania Seedleaf type 41 averaged over 90 percent of its parity price.

The 1947 wrapper price reached a new high. Connecticut Valley, type 61, averaged 2.70 dollars per pound, 12 1/2 percent above 1946 while the Georgia-Florida average of 2.45 dollars per pound was up 11 percent over last season.

Table 7.- Tax-paid withdrawals of tobacco products
in the United States calendar years 1946,
1947, and January-June 1947-48 1/

Products	Calendar year			January - June		
	1946	1947	Change	1947	1948	Change
	Millions	Millions	Percent	Millions	Millions	Percent
	:	:	:	:	:	:
Small cigarettes	321,474	335,964	/ 4.5	162,782	172,016	/ 5.7
Large cigarettes	1.0	0.5	-50.0	<u>2/</u>	<u>2/</u>	/ 3.3
Large cigars	5,914	5,631	- 4.8	2,711	2,767	/ 2.1
Small cigars	93	81	-12.9	42	49	/16.7
Snuff <u>3/</u>	39.7	39.3	- 1.0	19.6	21.3	/ 8.7
Manufactured tobacco <u>3/</u>	211.1	199.2	- 5.6	91.2	97.7	/ 7.1

1/ Based on sales of revenue stamps, and includes products from Puerto Rico.

2/ 292,930 in 1947 and 302,551 in 1948.

3/ Million pounds.

TOBACCO AND THE AGRICULTURAL ACT OF 1948

The 80th Congress passed and the President approved on July 3 the "Agricultural Act of 1948," which contains several provisions pertaining to tobacco.

Title I: 1949 Price Stabilization

Title I provides for the extension of price supports on tobacco to "cooperators" at 90 percent of parity; price supports to noncooperators would be at 54 percent of parity and only on so much of the commodity as would be subject to marketing quota penalty if marketed.

Effective January 1, 1949, Title I changes the parity base period for Maryland tobacco from August 1919-July 1929 to August 1936-July 1941. The new base prices (the average of the season averages 1936-40) for Maryland tobacco will be 23.0 cents. If the new base period were now in effect, the following comparison could be made between the old and new Maryland tobacco parities. As of July 15, 1948, prices paid by farmers for items used in living and production had increased by 113 percent since the new base period. This percentage increase applied to the new base price of Maryland tobacco, 23.0 cents, would give a parity price of Maryland tobacco as of July 15, 1948, of 49.0 cents per pound. This compares with 38.2 cents per pound, the parity price as now computed.

Previous legislation that provided for price supports for fire-cured tobacco at 75 percent of the loan rate for Burley and for dark air-cured and Virginia sun-cured at 66 2/3 percent of the loan rate for Burley is continued in effect.

Title II. Amendments to the Agricultural
Adjustment Act of 1938

The Agricultural Act of 1948 also includes a new formula for computing parity prices of agricultural commodities, which will be effective after January 1, 1950. While the new formula is not designed to change the general level of parity prices, it will increase the parity price of some commodities and lower it for others. The purpose of the new formula is to bring the relationship between parity prices of the various farm products more nearly in line with the relation between actual prices of these products in recent years.

Parity prices for the majority of the principal agricultural commodities as used in all agricultural legislation in the past 15 years have been based on the average prices received by farmers in the base period, August 1909-July 1914. For tobacco however, the base period for some types was 1919-28 and for others, 1934-38. The parity prices for the various kinds of tobacco for a particular month has been computed by

multiplying the appropriate base price by the index of prices farmers pay for production and family living commodities. Calculated in a similar way, parity prices of the various farm products change from month to month in line with changes in the index of prices paid by farmers. The relationship between the parity prices of the different products, however, does not change, since it is fixed by the relation between the actual prices received for the products in the base periods.

However, the relationship between actual prices received for various farm products has changed greatly since the 1910-14 base period. Under the new formula, parity prices are computed for the individual commodities so the relationship between the parity prices will be the same as the relationship between actual prices received for the commodities in the most recent 10 years.

The method of computing the parity price of flue-cured, using the new formula, is illustrated below, using July 15 prices and indexes:

1. The average price of flue-cured during the 10 marketing seasons beginning in the calendar years 1938-47 was 53.6 cents per pound.
2. The index of prices received by farmers for all agricultural commodities 1938-47 was 168 (1910-14 = 100).
3. Dividing the average price of flue-cured for the recent 10 market-seasons, 53.6, by the average index of prices received for all agricultural commodities during the recent 10 years, 168, results in an adjusted base price of 20.0 cents per pound.
4. The adjusted base price is then multiplied by the current index of prices paid, interest, and taxes. If the new formula had been applied as of July 1948, this index then being 251 (1910-14 = 100) the parity price for flue-cured would have been 50.2 cents per pound. The July 15, 1948, parity price of flue-cured computed by the method now in use is 48.8 cents per pound.

Actually, the new method of calculation does not become effective until January 1, 1950, and will become the basis for price supports beginning with the 1950 crop. When parity prices are calculated in 1950, the 1940-49 average of flue-cured prices divided by the average 1940-49 index of prices received for all agricultural commodities will give the adjusted base price. This adjusted base price, when multiplied by the June 1950 index of prices paid, interest, and taxes, will give the new parity, 90 percent of which will provide the basis for the support price for the 1950 flue-cured crop if marketing quotas are in effect.

A comparison of the results of the method now being used with those under the new formula for the different kinds of tobacco is given below for purposes of illustration:

Classes and types as specified in the Agri- cultural Adjustment Act of 1938 ^{1/}	Parity under present formula (as of July 15, 1948) <u>Cents per pound</u>	New formula which becomes effective in 1950* (as of July 15, 1948) <u>Cents per pound</u>
Flue-cured, 11-14	48.8	50.2
Fire-cured, 21-24 ^{2/}	22.6	28.9
Burley, 31	47.3	50.7
Maryland, 32	38.0	60.7
Dark air-cured, 35-36 ^{2/}	18.1	25.4
Virginia sun-cured, 37 ^{2/}	24.2	33.9
Pennsylvania Seedleaf, 41	23.4	30.1
Cigar-filler and binder, 42-46, 51-56	33.5	38.9
Types not listed in <u>1938 Act</u>		
Cigar wrapper, 61	161.0	240.0
Cigar wrapper, 62	100.0	193.0

*Note: The calculations in this column are based on the 10-year average of season averages 1938-47 and the corresponding calendar year average of the price index for all agricultural commodities to derive the adjusted base price. In 1950, calculations will be based on the corresponding averages for the years 1940-49.

^{1/} Except type 45, which has been entirely supplanted by type 56.

^{2/} By Public Law 163, July 28, 1945, price support for fire-cured is based on 75 percent of the Burley loan rate; and for dark-cured and Virginia sun-cured, on 66-2/3 percent of the Burley loan rate. The Burley loan rate is based on 90 percent of its parity price at the beginning of the marketing year, October 1.

In early 1943, parity equivalents were computed for cigar types 42-56 to give growers of these types some basis for comparisons. If parity equivalents of the individual cigar tobacco filler and binder types continue to be computed from the parity price of the combined types 42-56, the following comparisons would illustrate the results by the old and new methods:

<u>Types of cigar-filler and binder for which parity equivalents are computed</u>	Parity equivalents <u>1/</u> derived from parity of types 42-56 com- puted under present formula (as of July 15, 1948)	Parity equivalents <u>1/</u> derived from parity of type 42-56 com- puted by new formula effective in 1950* (as of July 15, 1948)
	<u>Cents per pound</u>	<u>Cents per pound</u>
Miami Valley (Ohio), 42-44	21.3	24.8
Puerto Rican, 46	36.7	42.6
Conn. Valley Broadleaf, 51	47.4	55.0
Conn. Valley Havana Seed, 52	50.1	58.2
N. Y. and Pa. Havana Seed, 53	28.3	32.8
Southern Wisconsin, 54	23.1	26.8
Northern Wisconsin, 55	30.0	34.9
Georgia and Florida sun grown, 56	32.3	37.5

*Note: The calculations in this column are based on the 10-year average of season averages 1938-47 for types 42-56 combined and the corresponding calendar year average of the price index for all agricultural commodities to derive the adjusted base price. In 1950, calculations will be based on the corresponding averages for the years 1940-49.

1/ The parity equivalents are computed by applying the percentage relationship of the price of each type (or of 3 types in the case of Ohio types 42-44) and the composite price of the cigar-filler and binder, types 42-56, during the 1937-41 seasons, to the July 15 parity price for cigar-filler and binder, types 42-56, as shown in the previous table.

The definitions of "normal supply" and "total supply" for tobacco in the 1938 Act have not been changed, although they were changed for the other "basic" commodities.

In the case of the basic commodities, minimum price support levels range from 60 percent of parity when total supply exceeds 130 percent of normal to 90 percent of parity when total supply is less than 70 percent of normal. These are minimum price support levels and the Secretary is given authority to go above the level indicated by the schedule up to 90 percent of parity. When acreage allotments or marketing quotas are in effect, the minimum support level is automatically increased by 20 percent of what the support price would otherwise have been.

Tobacco is a special case. For those kinds of tobacco for which marketing quotas are in effect, except fire-cured and dark air-cured, the support level is fixed at 90 percent of the parity price. Fire-cured or dark air-cured will continue to have their average loan rates based on 75 and 66 $\frac{2}{3}$ percent of the Burley loan rate, respectively.

If marketing quotas are proclaimed by the Secretary of Agriculture and then are disapproved by more than one-third of the growers voting in a referendum, the support level is reduced to 50 percent of the parity price. This applies to all basic commodities.

Under Title II, marketing quotas must be proclaimed for each kind of tobacco for which quotas are in effect. Further, this provision of Title II states that a quota for Virginia sun-cured tobacco, type 37, shall be proclaimed for each year in which a quota is proclaimed for fire-cured tobacco. Quotas are in effect on the 1948 crops of flue-cured, fire-cured, Burley, and dark air-cured, types 35-36. If quotas are proclaimed for the 1949 crops of fire-cured and dark air-cured, these quotas will be submitted to a growers' referendum this year. In the previous referendum in October 1945, quotas were approved by growers for 3 years, 1936, 1947, and 1948. In referenda held in July and October 1946, flue-cured and Burley growers approved quotas for 3 years, 1947, 1948, and 1949. Thus for these types, if 1949 quotas are proclaimed, the 1950 quota proclamations will be automatic and the growers' referenda will be held in 1949 to decide for or against quotas on crops beginning with 1950. Maryland, type 32, Pennsylvania Seedleaf, type 41, and cigar-filler and binder, types 42-46 and 51-56, do not have quotas in effect. When a quota has not been proclaimed for a particular kind of tobacco beginning with the 1950 crop, price supports for that tobacco will be based on the relationship of total supply to normal supply as in the case of other basic commodities; and price supports at 90 percent of parity, while permissive, will not be mandatory. It is important to emphasize, however, that if a quota is proclaimed and then disapproved by growers voting in a referendum, the level of price support would drop to 50 percent of parity.

Table 8.- Acreage of tobacco in the United States,
by types, 1934-38 average, 1947 and 1948

Type	1934-38		1947 1/		1948 1/		Percentage change	
	1934-38	1947	1948	1947	1948	1948	1934-38 to 1948	1947 to 1948
	1,000 acres	1,000 acres	1,000 acres	Percent	Percent	Percent	Percent	Percent
Total flue-cured, types 11-14:	863.1	1,161.2	888.5	+2.9	-23.5			
Old and Middle Belt, type 11	327.1	413.0	320.0	-2.2	-22.5			
Eastern North Carolina, type 12	296.6	387.0	294.0	-.9	-24.0			
South Carolina, type 13	155.7	231.0	171.0	+9.8	-26.0			
Georgia and Florida, type 14	83.7	130.2	103.5	+23.7	-20.5			
Total fire-cured, types 21-24:	135.2	83.8	63.7	-52.9	-24.0			
Virginia, type 21	23.1	14.3	11.0	-52.4	-23.1			
Kentucky and Tennessee, type 22	76.7	48.7	36.2	-52.8	-25.7			
Kentucky and Tennessee, type 23	32.4	20.6	16.3	-49.7	-20.9			
Henderson, type 24	3.0	.2	.2	-93.3	.0			
Burley, type 31	347.2	413.8	409.0	+17.8	-1.2			
Maryland, type 32	36.7	48.0	47.0	+28.1	-2.1			
Total dark air-cured, types 35-37:	42.0	35.4	29.9	-28.8	-15.5			
One Sucker, type 35	19.9	19.3	16.0	-19.6	-17.1			
Green River, type 36	18.8	13.5	10.5	-44.1	-22.2			
Virginia sun-cured, type 37	3.3	2.6	3.4	+3.0	+30.8			
Total cigar-filler, types 41-44:	38.0	44.8	43.7	+15.0	-2.5			
Pennsylvania Seedleaf, type 41	23.4	38.8	38.0	+62.4	-2.1			
Miami Valley, types 42-44	14.6	6.0	5.7	-61.6	-5.0			
Total cigar binder, types 51-56:	2/ 29.9	43.7	38.7	+29.4	-11.4			
Connecticut Valley Broadleaf, type 51	7.2	9.0	8.1	+12.5	-10.0			
Conn. Valley Havana Seed, type 52	5.4	8.1	8.1	+50.0	.0			
N. Y. and Pa. Havana Seed, type 53	.7	1.4	1.1	+57.1	-21.4			
Southern Wisconsin, type 54	8.9	10.4	7.9	-11.2	-24.0			
Northern Wisconsin, type 55	6.7	14.5	13.3	+98.5	+8.3			
Georgia and Florida sun-grown, type 56:	2/ 1.0	.3	.2	-80.0	-33.3			
Total cigar wrapper, types 61-62:	8.9	13.7	15.0	+68.5	+9.5			
Conn. Valley shade-grown, type 61	6.3	9.4	10.4	+65.1	+10.6			
Ga. and Fla. shade-grown, type 62	2.6	4.3	4.6	+57.9	+7.0			
Louisiana Perique, type 72	.3	.6	.3	.0	-50.0			
Total all types	1,501.3	1,845.0	1,535.8	+2.3	-16.8			

1/ Preliminary.

2/ Includes a small amount of type 45 supplanted by type 56.

Table 9.- Tobacco: Yield per acre by classes and types, specific averages, and annual 1934-48

Period	Five-	Fire-	Burley	Mary-	Dark	Cigar		United	States
	cured	cured	31	land	air-	Filler	Binder	Wrapper	
	11-14	21-24		32	cured	41-45	51-56	61-62	
	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
1924-28 av.	676	767	807	781	784	1,340	1,256	1,041	765
1929-33 av.	707	777	777	683	803	1,035	1,350	1,039	770
1934-38 av.	856	811	819	749	837	1,266	1,465	954	865
1934	822	874	831	720	885	1,255	1,550	1,040	852
1935	928	823	794	775	847	1,288	1,531	974	905
1936	790	787	729	820	723	1,344	1,559	1,046	807
1937	875	830	907	650	902	1,204	1,430	851	895
1938	866	740	833	780	828	1,239	1,255	860	866
1939-43 av.	963	923	985	755	958	1,323	1,526	982	986
1939	922	868	931	820	908	1,292	1,536	1,044	940
1940	1,025	888	1,045	850	905	1,337	1,530	922	1,036
1941	905	935	985	775	967	1,497	1,503	939	966
1942	1,024	982	980	740	1,037	1,249	1,520	963	1,023
1943	938	943	982	590	972	1,241	1,540	1,044	964
1944-48 av.	1,113	1,049	1,180	775	1,085	1,440	1,532	1,004	1,136
1944	1,069	1,022	1,189	850	1,116	1,493	1,547	1,075	1,116
1945	1,088	951	1,127	525	988	1,281	1,529	1,001	1,094
1946	1,137	1,189	1,256	925	1,215	1,504	1,551	1,000	1,182
1947 ^{1/}	1,135	1,024	1,170	800	1,054	1,454	1,503	975	1,142
1948 ^{2/}	1,137	1,059	1,158	775	1,054	1,467	1,529	969	1,144
Percentage change									
1934-38 av. to									
1944-48 av.	+30.0	+29.3	+44.1	+3.5	+29.6	+13.7	+4.6	+5.2	+31.3
1947 to 1948	+2	+3.4	-1.0	-3.1	.0	+9	+1.7	-6	+2

^{1/} From 1936 to 1939, type 45 (filler) supplanted by type 56 (binder).

^{2/} Preliminary.

OFFICIAL BUSINESS

TS-45-8/48-2300
PERMIT NO. 1001



UNIVERSITY OF FLA LIBRARY
REFERENCE DEPT
FNS-X GAINESVILLE FLA

- 32 -

Table 10.- Production of manufactured tobacco in the United States,
1937-41 average and annual 1942-48

Calendar year	Chewing					Smoking	Snuff
	Plug	Twist	Fine-cut	Scrap	Total		
	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.
1937-41 av.	52.6	5.9	4.7	45.4	106.6	198.7	38.0
1942	54.3	6.0	5.1	48.3	113.7	175.7	41.0
1943	58.9	6.3	4.5	51.4	121.1	162.8	45.2
1944	61.7	6.5	4.1	52.9	125.2	139.9	42.0
1945	59.7	6.7	4.0	47.7	118.1	168.5	43.8
1946	51.8	5.8	3.8	46.2	107.6	105.9	39.4
1947	47.4	5.2	3.7	42.2	98.5	104.6	39.3
Jan.-Apr. 1947	15.5	1.8	1.2	13.7	32.2	31.9	12.8
Jan.-Apr. 1948	15.1	1.9	1.2	13.5	31.7	34.4	14.0
Percentage change							
1946 to 1947	-8.5	-10.3	-2.6	-8.7	-8.5	-1.2	-.3
Jan.-Apr. 1947 to 1948	-2.6	+5.6	.0	-1.5	-1.6	+7.8	+9.4